

OHIO AGRICULTURAL EXPERIMENT STATION  
Lane Avenue Farm, Columbus, Ohio

Department of Horticulture Mimeograph Series No. 177  
March 14, 1959

STAKED TOMATO VARIETY TRIALS - 1958  
Columbus, Ohio

Walter N. Brown<sup>1</sup>

The 1958 staked-tomato variety trials at Columbus included ten varieties in six replications, twenty varieties replicated two times, and twenty varieties in single plots. Each of the ten varieties had been in either the six or two replication trials in 1957. The results of these trials are presented in tables 1, 2, 3 respectively.

CULTURAL INFORMATION

Seed Sown: April 19 in flats in the greenhouse, transplanted to 3" Jiffy peat pots April 26. The 6 replication plots, the 2 replication and single replication plots were field set June 17.

Fertilizer: 500 lbs./acre of 10-10-10 disked in prior to planting plus one side dressing of 100 lbs./acre of ammonium nitrate applied July 23 after first cluster was set.

Starter Solution: 3 lbs./50 gal. of 10-52-17 at rate of 1/2 pint per plant.

Spacing: Rows 48" apart with plants spaced 18" in the row; 20 plants per single row plot of 30' for yield.

Date of first harvest: August 5, 1958. Fruits harvested in pink stage.

Grades: Established to evaluate the amount and extent of cracking. Grade No. 1 - Crack-free fruits meeting all specifications of U. S. No. 1; Grade No. 2 - Cracks less than  $\frac{1}{2}$ " in length, well healed and otherwise meeting specifications for U. S. No. 1; Grade No. 3 - Cracks longer than  $\frac{1}{2}$ ", well healed and otherwise meeting specifications for U. S. No. 2; Culls - all other fruits not meeting specifications of above three grades.

SOURCES OF SEED

<u>Code</u>	<u>Source</u>
A2	Associated Seed Growers, New Haven 2, Conn.
A4	Alpha Seeds, Box 1042, Lompoc, Calif.
B1	W. Atlee Burpee & Co., Philadelphia 32, Pa.
B2	Burgess Seed & Plant Co., Galesburg, Mich.
C1	Corneli Seed Co., 101 Chauteau Ave., St. Louis 2, Mo.
F1	Ferry-Morse Seed Co., P.O. Box 778, Detroit 31, Mich.
G1	Gill Bros. Seed Co., Montavilla Sta., Portland 20, Ore.
G2	Germain's Seed Co., 6400 E. Washington Blvd., Los Angeles 22, Calif.
H1	Joseph Harris Co., Inc., Moreton Farm, Rochester 11, N.Y.
M2	Midwest Seed Growers, 505 Walnut St., Kansas City, Mo.
O1	W. N. Brown, Ohio Agr. Exp. Sta., Dept. of Hort., Columbus 10, Ohio
P1	Peto Seed Co., P. O. Box 138, Saticoy, Calif.
S1	Francis C. Stokes Seed Co., Vincentown, N.J.
W1	F. H. Woodruff & Son (Now incorporated with Associated Seed Growers)

Footnotes for tables:

- Varieties are ranked in order of early yield of No. 1 grade fruits.
- Figures in parentheses Columns 3, 4 and 5 are percentages of total early marketable yield harvested in each grade.
- Percentages of total season's marketable yield harvested to Aug. 3 (Early)
- Columns 9, 10, and 11 are percentages of total season's marketable yield harvested in each grade.
- Percentages of culls based on gross early yield.
- Percentages of culls based on gross season's yield.

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Columbus 10, Ohio

TABLE 1  
STAKED TOMATO VARIETY TRIALS - 1958  
OAES, COLUMBUS, OHIO

VC - 58, p.2

(6 Replications)

Variety and Lot Number			Early Yield to August 30						Season's Yield to October 2					
			Pounds of Marketable Fruit per Acre				Culls (lbs)	Average Fruit Wt.	Pounds of Marketable Fruit per Acre				Culls (lbs.)	Average Fruit Wt.(lbs)
			No. 1	No. 2	No. 3	Total			No. 1	No. 2	No. 3	Total		
7. Glamour	1414	H <sub>1</sub>	5,990 (72.0) <sup>b</sup>	1,761 (21.2) <sup>b</sup>	569 (6.8) <sup>b</sup>	8,320 (21.3) <sup>c</sup>	163 (1.0) <sup>e</sup>	.293	13,806 (35.5) <sup>d</sup>	14,774 (38.0) <sup>e</sup>	10,321 (26.5) <sup>d</sup>	38,902	1,077 (2.7) <sup>b</sup>	.314
4. Queens	6118-58	B <sub>1</sub>	5,917 (64.1)	2,523 (27.3)	793 (8.6)	9,223 (22.8)	303 (3.2)	.276	9,015 (22.3)	13,237 (32.8)	18,162 (44.9)	40,414	889 (2.2)	.298
1. Moreton Hybrid	1417	H <sub>1</sub>	5,548 (41.3)	6,238 (46.5)	1,634 (12.2)	13,420 (33.6)	200 (1.5)	.281	6,667 (16.7)	13,292 (33.3)	19,947 (50.0)	39,906	902 (2.2)	.313
10. OSU 26-5	M-51	O <sub>1</sub>	5,245 (67.3)	1,857 (23.8)	696 (8.9)	7,798 (16.6)	218 (2.7)	.322	15,627 (33.3)	18,586 (39.6)	12,753 (27.1)	46,966	1,258 (2.7)	.366
5. Wisconsin 55	44655	W <sub>1</sub>	4,876 (48.0)	3,503 (34.5)	1,773 (17.5)	10,152 (22.2)	587 (5.5)	.310	7,218 (15.8)	14,750 (32.2)	23,801 (52.0)	45,768	1,258 (2.7)	.373
8. Ohio Red NW-102-22-12-56		O <sub>1</sub>	4,755 (65.9)	1,615 (22.4)	841 (11.7)	7,211 (15.5)	393 (5.2)	.265	9,662 (20.7)	17,115 (36.8)	19,790 (42.5)	46,567	1,228 (2.6)	.334
6. Foremost E-21	85209	F <sub>1</sub>	3,957 (51.4)	2,638 (34.3)	1,101 (14.3)	7,696 (19.5)	224 (2.8)	.305	5,693 (14.4)	11,628 (29.4)	22,210 (56.2)	39 531	914 (2.2)	.369
9. OSU 3-1	M-37	O <sub>1</sub>	3,781 (62.7)	1,797 (29.8)	454 (7.5)	6,032 (16.1)	508 (7.8)	.247	9,934 (26.5)	18,271 (48.7)	9,317 (24.8)	37,522	1,331 (3.4)	.306
3. Pritchard	367B	M <sub>2</sub>	4,167 (45.2)	3,674 (39.8)	1,379 (15.0)	9,220 (25.9)	319 (3.3)	.246	6,599 (18.5)	11,471 (32.2)	17,540 (49.3)	35,610	1,510 (4.1)	.261
2. Big Early Hybrid	6136-58	B <sub>1</sub>	3,200 (29.8)	4,997 (46.5)	2,553 (23.7)	10,750 (27.8)	139 (1.3)	.321	4,144 (10.7)	9,190 (23.8)	25,350 (65.5)	38,684	865 (2.2)	.364
LSD @ 5% level						3,325						9,576		

TABLE 2  
STAKED TOMATO VARIETY TRIALS - 1958  
OAES, COLUMBUS, OHIO

VC - 58, p.3			(2 Replications)												
Variety and Lot Number			Source	Early Yield to August 30					Season's Yield to October 2						
				Pounds of Marketable Fruit per Acre				Culls (lbs)	Average Fruit Wt. (lbs.)	Pounds of Marketable Fruit per Acre				Culls (lbs.)	Average Fruit Wt.(lbs)
				No. 1	No. 2	No. 3	Total			No. 1	No. 2	No. 3	Total		
17.	Early Red Chief	1315	H <sub>1</sub>	14,193 (70.1) <sup>b</sup>	4,410 (21.8) <sup>b</sup>	1,652 (8.1) <sup>b</sup>	20,255 (43.3) <sup>c</sup>	163 (0.8) <sup>e</sup>	.343	17,043 (36.4) <sup>d</sup>	12,596 (26.9) <sup>d</sup>	17,134 (36.7) <sup>d</sup>	46,773	1,670 (3.4) <sup>f</sup>	.319
12.	Early Wonder	Trial 56	B <sub>1</sub>	12,269 (76.0)	2,523 (15.6)	1,343 (8.4)	16,135 (52.6)	270 (1.8)	.337	15,682 (51.2)	6,262 (20.4)	8,712 (28.4)	30,656	1,379 (4.3)	.292
11.	Fire Ball	1363	H <sub>1</sub>	9,765 (65.5)	3,249 (21.8)	1,888 (12.7)	14,902 (76.0)	817 (5.2)	.205	10,291 (52.5)	4,774 (24.4)	4,538 (23.1)	19,603	1,779 (8.3)	.201
19.	Early Red	70-17-2-55	O <sub>1</sub>	8,258 (67.5)	2,922 (23.9)	1,053 (8.6)	12,233 (36.4)	290 (2.3)	.252	10,327 (30.8)	7,805 (23.2)	15,446 (46.0)	33,578	2,378 (6.6)	.277
26.	Homestead	7-815-SS	W <sub>1</sub>	8,077 (58.2)	3,812 (27.5)	1,997 (14.3)	13,886 (38.1)	345 (2.4)	.258	9,855 (27.0)	8,004 (21.9)	18,622 (51.1)	36,481	1,525 (4.0)	.273
28.	Homestead 24	5606A	A <sub>2</sub>	7,423 (58.4)	4,193 (33.0)	1,107 (8.6)	12,723 (31.4)	436 (3.3)	.260	11,253 (27.7)	13,086 (32.3)	16,226 (40.0)	40,565	1,434 (3.4)	.297
24.	Texto 2	5621	A <sub>2</sub>	6,788 (58.3)	3,648 (31.3)	1,216 (10.4)	11,652 (25.8)	236 (2.0)	.282	9,747 (21.5)	14,810 (32.7)	20,673 (45.8)	45,230	1,016 (2.2)	.326
27.	Homestead #2	7-817SS	W <sub>1</sub>	6,516 (56.7)	3,557 (31.0)	1,416 (12.3)	11,489 (30.3)	309 (2.6)	.258	10,400 (27.5)	10,055 (26.5)	17,424 (46.0)	37,879	1,252 (3.2)	.287
15.	Cornell	53-549 SEL NW-53-549-2-19	O <sub>1</sub>	6,480 (78.3)	1,162 (14.0)	635 (7.7)	8,277 (26.3)	617 (6.9)	.265	13,812 (43.9)	8,022 (25.5)	9,638 (30.6)	31,472	2,686 (7.9)	.265
25.	Homestead FM	D -6415	F <sub>1</sub>	6,135 (71.8)	2,178 (25.5)	236 (2.7)	8,549 (19.9)	327 (3.7)	.239	9,601 (22.4)	9,946 (23.2)	23,359 (54.4)	42,906	1,924 (4.3)	.297

TABLE 2 Continued  
STAKED TOMATO VARIETY TRIALS - 1958  
OAES, COLUMBUS, OHIO

VC- 58, p.4

Variety <sup>a</sup> and Lot Number			Early Yield to August 30							(2 Replications)					
			Pounds of Marketable Fruit per Acre				Culls (lbs)	Average Fruit Wt. (lbs)		Season's Yield to October 2				Culls (lbs)	Average Fruit Wt. (lbs)
			No. 1	No. 2	No. 3	Total				No. 1	No. 2	No. 3	Total		
29. Sensation Hybrid	6607	L1	5,808 (49.6) <sup>b</sup>	3,630 (31.0) <sup>b</sup>	2,269 (19.4) <sup>b</sup>	11,707 (30.0) <sup>c</sup>	545 (4.4) <sup>e</sup>	.295		7,187 (18.4) <sup>d</sup>	7,351 (18.8) <sup>d</sup>	24,539 (62.8) <sup>d</sup>	39,077	2,505 (6.0) <sup>f</sup>	.312
20. Texas W-24 (Weshaven) NW 111-31-16-56		O1	5,209 (40.8)	4,084 (32.0)	3,485 (27.2)	12,778 (36.7)	200 (1.5)	.273		6,389 (18.4)	7,460 (21.4)	20,945 (60.2)	34,794	1,833 (5.0)	.300
23. Early Bird F2	M539	A2	5,191 (51.5)	4,120 (40.9)	762 (7.6)	10,073 (25.2)	182 (1.8)	.286		8,767 (21.9)	14,375 (35.9)	16,843 (42.2)	39,985	889 (2.2)	.318
30. MAT	D5419	F1	3,957 (66.3)	1,379 (23.1)	635 (10.6)	5,971 (17.6)	200 (3.2)	.246		5,953 (17.5)	5,881 (17.3)	22,125 (65.2)	33,959	2,904 (7.9)	.269
14. Cornell 53-548-SEL NW 53-548-2-17		O1	3,812 (73.2)	781 (15.0)	617 (11.8)	5,210 (11.6)	290 (5.3)	.256		18,023 (40.0)	14,810 (32.8)	12,269 (27.2)	45,102	2,414 (5.1)	.325
13. Big Boy Hybrid 6123-56		B1	3,630 (49.5)	2,595 (35.4)	1,107 (15.1)	7,332 (21.3)	182 (2.4)	.326		4,574 (13.3)	6,589 (19.2)	23,232 (67.5)	34,395	1,089 (3.1)	.369
16. Pearson B	5938	G1	3,086 (35.5)	4,683 (53.9)	926 (10.6)	8,695 (17.2)	545 (5.9)	.368		8,640 (17.1)	22,343 (44.3)	19,475 (38.6)	50,458	2,559 (14.8)	.402
22. Pearson C-65	1-4124	W1	2,124 (41.2)	2,396 (46.5)	635 (12.3)	5,155 (12.7)	127 (2.4)	.342		4,937 (12.2)	12,705 (31.4)	22,796 (56.4)	40,348	1,470 (3.5)	.342
21. Deep Fruited Pearson	6052	G2	1,470 (40.9)	1,271 (35.4)	853 (23.7)	3,594 (9.6)	145 (3.9)	.296		3,213 (8.6)	11,180 (29.8)	23,141 (61.6)	37,534	1,833 (4.7)	.334
18. Urbana	3934	C1	1,198 (28.4)	1,289 (30.6)	1,724 (41.0)	4,211 (16.6)	381 (8.3)	.232		2,069 (8.2)	6,552 (25.9)	16,716 (65.9)	25,337	1,216 (4.6)	.253

TABLE 3  
STAKED TOMATO VARIETY TRIALS - 1958  
OAES, COLUMBUS, OHIO

VC - 58, p. 5

(1 Replication)

Variety <sup>a</sup> and Lot Number			Early Yield to August 30						Season's Yield to October 2					
			Pounds of Marketable Fruit per Acre				Culls (lbs)	Average Fruit Wt. (lbs)	Pounds of Marketable Fruit per acre				Culls (lbs)	Average Fruit Wt. (lbs)
			No. 1	No. 2	No. 3	Total			No. 1	No. 2	No. 3	Total		
41. Alpha 1	Trial 58	A <sub>4</sub>	16,335 <sub>b</sub> (79.1) <sub>b</sub>	2,940 <sub>b</sub> (14.2) <sub>b</sub>	1,379 <sub>b</sub> (6.7) <sub>b</sub>	20,654 <sub>c</sub> (63.2) <sub>c</sub>	1,271 <sub>e</sub> (5.8) <sub>e</sub>	.358	19,203 <sub>d</sub> (58.8) <sub>d</sub>	6,062 <sub>d</sub> (18.6) <sub>d</sub>	7,405 <sub>d</sub> (22.6) <sub>d</sub>	32,670	3,013 <sub>f</sub> (8.4) <sub>f</sub>	.284
47. Alpha Exp. #100	Trial 58	A <sub>4</sub>	15,754 <sub>b</sub> (86.1)	2,142 <sub>b</sub> (11.7)	399 <sub>b</sub> (2.2)	18,295 <sub>c</sub> (77.1)	908 <sub>e</sub> (4.7)	.177	17,823 <sub>d</sub> (65.2)	4,029 <sub>d</sub> (14.7)	5,481 <sub>d</sub> (20.1)	23,733	2,468 <sub>f</sub> (8.3)	.184
45. Alpha 5	Trial 58	A <sub>4</sub>	13,431 <sub>b</sub> (86.9)	1,742 <sub>b</sub> (11.2)	290 <sub>b</sub> (1.9)	15,463 <sub>c</sub> (59.7)	1,274 <sub>e</sub> (7.6)	.178	16,117 <sub>d</sub> (62.3)	4,538 <sub>d</sub> (17.5)	5,227 <sub>d</sub> (20.2)	25,882	2,363 <sub>f</sub> (8.4)	.194
46. Alpha Exp. #86	Trial 58	A <sub>4</sub>	11,725 <sub>b</sub> (57.8)	6,498 <sub>b</sub> (32.0)	2,069 <sub>b</sub> (10.2)	20,292 <sub>c</sub> (69.7)	1,271 <sub>e</sub> (5.9)	.258	4,864 <sub>d</sub> (16.7)	9,728 <sub>d</sub> (33.4)	14,520 <sub>d</sub> (49.9)	29,112	1,960 <sub>f</sub> (6.3)	.212
43. Alpha 3	Trial 58	A <sub>4</sub>	9,620 <sub>b</sub> (72.0)	2,069 <sub>b</sub> (15.5)	1,670 <sub>b</sub> (12.5)	13,359 <sub>c</sub> (35.2)	726 <sub>e</sub> (5.2)	.213	11,072 <sub>d</sub> (29.2)	5,627 <sub>d</sub> (14.8)	21,199 <sub>d</sub> (56.0)	37,898	1,670 <sub>f</sub> (4.2)	.240
44. Alpha 4	Trial 58	A <sub>4</sub>	9,075 <sub>b</sub> (37.8)	3,812 <sub>b</sub> (24.2)	2,831 <sub>b</sub> (18.0)	15,718 <sub>c</sub> (57.3)	545 <sub>e</sub> (3.3)	.233	11,834 <sub>d</sub> (43.1)	7,877 <sub>d</sub> (28.7)	7,732 <sub>d</sub> (28.2)	27,443	1,416 <sub>f</sub> (4.9)	.263
40. CRT Hybrid	1359	H <sub>1</sub>	9,002 <sub>b</sub> (92.1)	2,541 <sub>b</sub> (20.3)	944 <sub>b</sub> ( 7.6)	12,487 <sub>c</sub> (33.0)	617 <sub>e</sub> (4.9)	.210	14,847 <sub>d</sub> (38.3)	9,111 <sub>d</sub> (24.1)	13,830 <sub>d</sub> (36.6)	37,788	1,670 <sub>f</sub> (4.2)	.214
34. Hybrid 57	Trial 58	B <sub>1</sub>	8,385 <sub>b</sub> (60.0)	4,683 <sub>b</sub> (33.5)	908 <sub>b</sub> ( 6.5)	13,976 <sub>c</sub> (33.0)	290 <sub>e</sub> (2.0)	.228	9,511 <sub>d</sub> (22.5)	11,798 <sub>d</sub> (27.9)	20,981 <sub>d</sub> (49.6)	42,290	653 <sub>f</sub> (1.5)	.266
42. Alpha 2	Trial 58	A <sub>4</sub>	8,168 <sub>b</sub> (56.7)	4,175 <sub>b</sub> (28.9)	2,069 <sub>b</sub> (14.4)	14,412 <sub>c</sub> (46.4)	1,053 <sub>e</sub> (6.8)	.248	10,309 <sub>d</sub> (33.3)	8,276 <sub>d</sub> (26.7)	12,342 <sub>d</sub> (40.0)	30,927	2,033 <sub>f</sub> (2.2)	.267
33. Queens	6118	B <sub>1</sub>	7,986 <sub>b</sub> (68.9)	2,614 <sub>b</sub> (22.6)	980 <sub>b</sub> ( 8.5)	11,580 <sub>c</sub> (35.3)	363 <sub>e</sub> (3.0)	.275	10,382 <sub>d</sub> (31.7)	6,861 <sub>d</sub> (20.9)	15,536 <sub>d</sub> (47.4)	32,779	1,198 <sub>f</sub> (3.5)	.261

TABLE 3 Continued  
STAKED TOMATO VARIETY TRIALS - 1958  
OAES, COLUMBUS, OHIO

( 1 Replication)

Variety <sup>a</sup> and Lot Number	Source	Early Yields to August 30							Season's Yield to October 2						
		Pounds of Marketable Fruit per Acre				Culls (lbs)	Average Fruit Wt.(lbs)		Pounds of Marketable Fruit Per Acre				Culls (lbs)	Average Fruit Wt.(lbs)	
		No. 1	No. 2	No. 3	Total				No. 1	No. 2	No. 3	Total			
48. Alpha Exp. #166 Trial 58	A <sub>4</sub>	7,805 (62.9)	1,888 (15.2)	2,723 (21.9)	12,416 (39.7)	1,089 (8.1)	.269		11,289 (36.1)	6,897 (22.0)	13,104 (41.9)	31,290	1,525 (4.6)	.301	
32. Queens 333	S <sub>1</sub>	7,768 (73.3) <sup>b</sup>	2,105 (19.9) <sup>b</sup>	726 ( 6.8) <sup>b</sup>	10,599 (31.3) <sup>c</sup>	254 (2.3) <sup>e</sup>	.261		8,821 (26.1) <sup>d</sup>	7,768 (22.9) <sup>d</sup>	17,243 (50.9) <sup>d</sup>	33,832	871 (2.5) <sup>f</sup>	.279	
49. Alpha Exp. #167 Trial 58	A <sub>4</sub>	6,498 (69.9)	1,851 (19.9)	944 (10.2)	9,293 (36.1)	290 (3.0)	.267		8,603 (33.4)	5,881 (22.3)	11,253 (43.8)	25,737	2,577 (9.1)	.263	
36. Alamo 5600	A <sub>2</sub>	5,590 (66.4)	2,142 (25.4)	690 ( 8.2)	8,422 (21.7)	436 (4.9)	.264		7,405 (19.1)	8,313 (21.4)	23,051 (59.5)	38,769	1,125 (2.8)	.288	
50. Alpha Exp. #168 Trial 58	A <sub>4</sub>	5,481 (43.3)	4,864 (38.4)	2,323 (18.3)	12,668 (28.2)	290 (2.2)	.279		6,716 (15.0)	11,108 (24.7)	27,080 (60.3)	44,904	835 (1.8)	.352	
37. Franklin F2 M5 310	A <sub>2</sub>	5,372 (52.9)	4,066 (40.0)	726 ( 7.1)	10,164 (28.7)	327 (3.1)	.283		5,990 (16.9)	7,913 (22.4)	21,490 (60.7)	35,393	617 (1.7)	.347	
38. Mamalucie 7-621-4	W <sub>1</sub>	4,646 (67.4)	1,779 (25.8)	472 ( 6.8)	6,897 (15.4)	254 (3.7)	.306		6,389 (14.2)	10,418 (23.2)	28,060 (62.5)	44,867	581 (1.3)	.372	
39. Japanese Pink Hybrid #5 2863	L <sub>1</sub>	3,920 (67.9)	762 (13.2)	1,089 (18.8)	5,771 (44.4)	327 (5.4)	.224		4,066 (31.3)	1,343 (10.3)	7,587 (58.4)	12,996	1,162 (8.2)	.244	
35. Caro - Red Purdue 58		3,449 (49.2)	3,049 (43.5)	508 ( 7.3)	7,006 (18.5)	73 (1.0)	.327		5,300 (13.9)	8,676 (22.9)	23,958 (63.2)	37,934	545 (1.4)	.344	
31. VAT D 611	F <sub>1</sub>	2,723 (36.3)	3,376 (44.7)	1,416 (18.8)	7,515 (23.84)	1,016 (11.9)	.318		3,558 (11.3)	8,967 (28.5)	18,985 (60.2)	31,510	2,396 (7.1)		